



Renewables for Artists Team

October 1, 2025

To: Liza Welsh, Regeneration Program Coordinator
Stephen Chun, Sustainability Project Manager
Matthew Deluge, Solar Program Manager
Peter Platzgummer, Complex Art Project Manager
Gloria Beck, Senior Project Manager, Art Support Services
Katie Hazard, Director of Art
Christopher Breedlove, Director of Civic Activation
George Reed III, Director of Regeneration

Subject: 2025 RAT After Burn Report - "Tomorrow Today"

With immense pride and heartfelt gratitude, we present the Renewables for Artists Team's 2025 report, which documents our progress, collaboration, and visionary action. This year's accomplishments stand as a testament to the unwavering spirit of innovation and community that fuels our mission. Our deep and enduring partnership with the Burning Man Project continues to blossom, rooted in mutual respect and a shared dream of transformation. Together, we stride boldly toward a regenerative future for Black Rock City, where creativity and sustainability work in harmony across the desert floor. Let this report be both a celebration of what we've achieved and a beacon guiding us toward what we know is possible.

Sincerely,

Ken Rehor and Steven Queen
RAT Co-Leaders

cc: Kirsten Weisenberger, Associate Director of Communications
Stuart Mangrum, Director of the Philosophical Center

Overview

The [Renewables for Artists Team](#) entered its fourth year, engaging in numerous activities to support projects at Black Rock City 2025, “Tomorrow Today.”

RAT successfully assisted 22 worldwide artists, including the Temple of the Deep, in bringing their art to the playa, powered by renewable energy, as showcased on the [RAT website](#) and listed starting on page 10 below.

The RAT introduced the new Solar Generator Trailer and the Dung Beetle Solar Generator to provide direct support for art projects and to demonstrate ways of building a renewable-based future (shown starting on page 7 below).

RAT continued to hold open [weekly meetings](#) throughout the year, expanding its all-volunteer team and offering a forum for Burners and RAT mentors to share and learn about renewable energy.

The RAT participated in the [Burning Man Project's Camp Symposium](#) and sponsored the RAT Renewable Energy Burners Symposium.

Safety First

Whether for [Off-the-Shelf or Do-It-Yourself](#) types of renewable power systems, the RAT is working to ensure that proper installation grounding, adequate protective fusing or circuit breakers, safe distribution (electric cords and cables), and secure storage of system components are in place to prevent electric shocks or electrocution at installations where RAT work is being carried out.

Please see ARTery/ASS Coordination below (starting on page 6).

Planning and Coordination

Weekly Meetings

Except during the Black Rock City event and December, the RAT holds weekly team meetings all year, and anyone interested in renewable energy is welcome to attend:

- ☐ Learn about renewable energy at Black Rock City.
- ☐ Interact with the RAT's Technical Advisors, who mentor and assist artists, theme camps, and others in transitioning from generators to renewable energy sources.
- ☐ Meet individuals who are passionate about renewable energy.
- ☐ Assist with RAT planning and operations at the next Black Rock City, regional, and special events.

Program of Work

New this year is the development of an annual [Program of Work](#). This document is used to define team roles and responsibilities, as well as to track scheduling and other team-related activities.

Targeted Guidance Mentoring Program

The first Targeted Guidance Mentoring Program Call for Artists was issued on January 30.

Later in the year, the RAT reorganized its mission, its support documentation, and added theme camps to the program (Appendix):

“Renewables for Artists Team (and Theme Camps too!)”

New RAT Google Drive

RAT's new Google Drive has been reorganized from the original drive and is now automatically backed up nightly to the MultCloud data backup service.

Education

Currently, the RAT website features an [Introduction to Renewable Power](#) page, designed to inform individuals with little to no knowledge of the basics of renewable energy systems. The next educational offering is the RAT-sponsored Hive classes and materials, which can be found on the [Education](#) page.

Discussions with individuals on the Playa raised the concern that many people are very busy and do not have the time, or will not complete Hive classes. To reach these people, the RAT is working on an intermediate page that will outline the details of various-sized system analysis, design, and components, as well as include safety considerations, for Off-the-Shelf or Do-It-Yourself systems, all in one place. Information available on the Hive's Theme Camp Builders [Electrical System Guide](#), the Green Theme Camp Community's [Resources Overview](#) page, and camp Bao Chicka Wow Wow's solar for [camps](#) and for charging [mutant vehicles](#) pages will be linked to and incorporated.

The RAT website now features a "[Hot Topics](#)" drop-down menu with over 50 video presentations, including RAT Skills Sharpening sessions combined with segments from the annual RAT Renewable Energy Burner Symposium and the BMP Camp Symposiums. The menu includes these topics:

- Analysis
- Art Projects
- Batteries
- Burning Man Project Sustainability Initiatives
- Camps - Small
- Camps - Medium
- Camps - Large
- Camp Symposiums
- Converters and Inverters
- Environmental Concerns
- Fuses and Breakers
- Solar Energy

- Solar Shade
- Unique Applications
- Welding on the Playa
- Wind Energy
- Wiring and Connectors

Currently, the [RAT Education Page](#) Shows These Resources:

- Camp Support
- Solar Power 101 - Online Burning Man Hive Course
- How To Do an Electrical Load Analysis - Online Burning Man Hive Course
- How To Do an Electrical Energy Inventory for Your Camp by Bruce Cooper
- Solar Powered System Estimator User's Guide by Doug Hanson
- Solar Powered System Estimator by Doug Hanson
- RAT Project Handbook by Doug Hanson, updated by Scott Williams
- RAT Mentor Handbook by Doug Hanson, updated by Scott Williams
- RoboTracker by Bob Wolff
- Burning Fuels Carbon Dioxide Emissions Calculator by Scott Williams

Regionals and Special Events

The RAT sponsored the fourth annual Renewable Energy Burner Symposium.

BEquinox: The RAT received access to the event, but scheduling conflicts prevented RAT members from attending.

San Francisco Decompression: RAT's Planning and Public Information Lead Scott Williams is planning to attend and cover the October 18 event for the BMP Communication and Documentation Teams.

On-Playa Operations

RAT Member Incident

On August 28, a RAT mentor fell while riding his bike and unfortunately broke his ankle. He was treated and transported by the Emergency Services Department to the Rampart Emergency Care Center and then transferred to the Renown Regional Medical Center in Reno, where he underwent surgery and was released on September 2, then flew home with his family to Washington, DC.

ARTery/ASS Coordination

A RAT member spoke at the ASS morning meeting on August 19 and delivered a RAT two-way radio. The ability of the ASS staff to communicate with the RAT's mentors was crucial in its ability to assist artists and others on Playa.

An ASS team member, Mongo, was assigned to ride along with RAT mentors to cross-learn about how the two groups operate and develop improved coordination and support. RAT mentors Dean Hively and Steven Queen discussed RAT activities to gain a better understanding of what RAT does and how it is conducted. There was an emphasis on safety, both for the artists and the community, as they visit and interact with the art pieces, as well as the way they are powered, either through generators or renewable sources.

Their discussions centered on two primary concerns: “turnkey” Off-the-Shelf Systems or Do-It-Yourself Systems, the latter of which could open the door to potentially unsafe wiring practices. In other words, are Do-It-Yourself Systems that are improperly designed, built, and implemented dangerous, and if so, what steps need to be taken to bring them in line with reasonable safety standards? They discussed the process by which F.A.S.T. inspects flame effects for general safety and compliance, which may be a recommended practice for artists to build their own power systems. We at RAT are all for developing Best Management Practices for artists, camps, and others as recommendations.

Sara (Saffron), from the ASS, met with Co-Leader Steve Queen regarding a non-RAT project that was having trouble with power. Steve and the Playa Penthouse loaned a 12VDC-100aH battery to “Chaos” for the duration of the burn. It worked successfully and was returned on Sunday evening.

Watch Duty

RAT mentors staffed the daily Watch Duty, providing coverage from 9:00 a.m. to 5:00 p.m., August 20 to August 28. Mentors responded to calls for assistance from the ASS for several artists and others in need of help.

RAT/AEZ Coordination

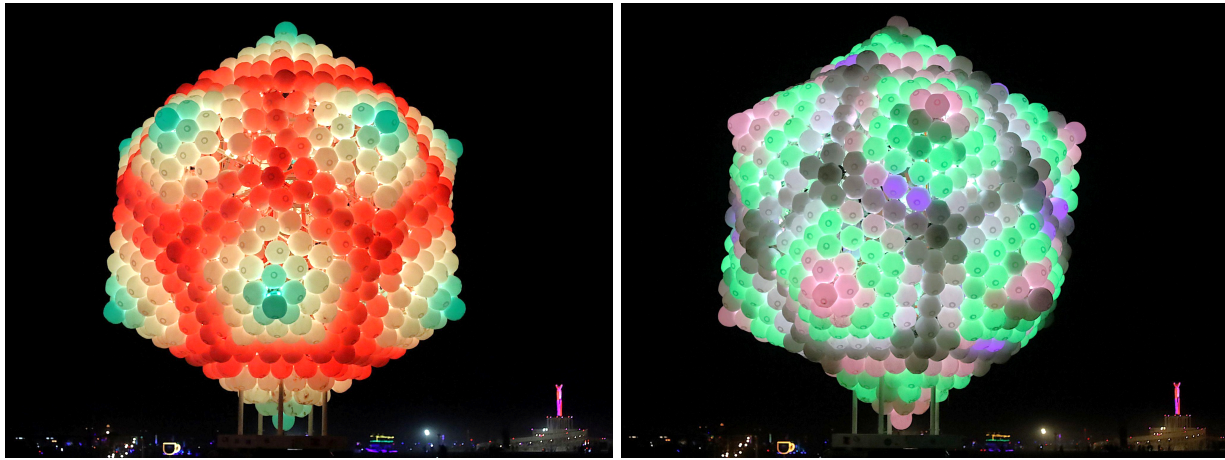
The RAT planned to engage with the Alternative Energy Zone in supporting each group's Renewable energy efforts; however, they were hindered by weather events and delays during build and event weeks, which prevented this from happening this year. The RAT plans to engage with AEZ next year.

New Solar Generator Trailer

Steven Queen built and operated the new RAT Solar Generator Trailer that powered the “Nova” art installation. In this on-Playa [video](#), Steven talks about the trailer. It worked very well, maintaining a state of charge of over 75% throughout the burn and surviving the windstorm. For the 2026 event, we will explore adding interpretive posters to the sides of the trailer.



RAT's Darren Emmons, Bob Wolff, and Steven Queen at the RAT Solar Generator Trailer



"Nova" by Chuck Summerville

New Dung Beetle Solar Generator

Steven Queen also built a dolly-mounted solar generator for providing power for much smaller art pieces on the Playa. In this [video](#), Steven discusses the Beetle. It was intended for use in powering the "Out the Other" art piece by Kate Greenberg; however, the single solar panel of the system proved too small. The beetle components were disassembled to facilitate the successful operation of the art installation, utilizing an array of additional panels for recharging.

RoboTracker

RAT mentor Bob Wolff invented the [RoboTracker](#) in 2024 to help projects monitor renewable system performance:

- The RoboTracker monitors systems every 5 seconds!
 - Power usage (Watts)
 - Voltage
 - Amps
 - Several temperatures (ambient, CPU, and power monitor)
- Operates on one battery for ~10-14 days



Bob talks about the RoboTracker on Playa in this [video](#). Bob also conducted a brief interview on BMIR during the afternoon on Monday, August 25, discussing how the RoboTracker is being used on the Playa to support various projects.

RAT Supported Projects

Art Installation	Contacts	Notes
Altar of Awen	Kristin Wesley	Powered by all-in-one Jackery and solar panels. Worked as designed.
Auditorium	Dave Walker	Powered by two 100 Ah batteries, a Victron charge controller, and a small 12-volt inverter. Worked as designed.
Chosen Family	Drewry Hanes	Powered by a 24V battery with two 100 panels mounted on a sandwich board. Worked as designed.
FREE SPIRITS	Giuseppe Sircana	Project from Rome, Italy. Powered by a single 12 VDC - 300aH battery that was recharged daily at the Playa Penthouse camp via their solar array.
Future Sketch	James Beach	
Haven	Carolyn Wales	Operated by a Scarab with success. Steven Queen never figured out the "Toast".
Illuminatrix	Dano! (Daniel) McKagan	RAT loaned a Bluetti system to this artist, with success.

Art Installation	Contacts	Notes
Jukebox Country	Max Juren	280aH battery switched daily from solar library. A success, although in retrospect, the artist regrets not installing panels and a controller to make it simpler.
Love Your Mother	Duffy Healey	120aH battery switched daily from solar library. A great success, the artist upped his lighting plan through RAT involvement.
Missing Link	Jamie Gloyne	5kW batteries, 1.4kW panels, successful, powered haptic interaction, soundscape, and lighting.
Nailed	Ray Frost	
No Brakes	Jordon Scibelli (Jammy Shred)	A micro solar system with minimal power needs, a successful design, and deployment by an artist
Nova	Chuck Sommerville	Discussed above.
Ohnivý Vták the Firebird	Skyhunter / Jen	
Out the Other	Kate Greenberg	Discussed above.
Pillar of Po Tolo	Antwane Lee	The scarab was provided by 360 with difficulty. The Scarab went down, the installation went dark for two nights, and it was not repaired until the Scarab was repaired. The project art support camp was located at a HUB with Playa Penthouse.
The Sphinx Gate	Tania Abdul	Powered by scarabs for building. The project was too busy to communicate effectively with RAT, but we did point them in the right direction.
Talk To God	Philia Beroud	
Temple of the Deep	Matty Drazenovic	For the 3rd year running, RAT has assisted with the power and lighting for the temple.
The Lightning Tower	Federico Maria Ceruso	
Thread	Samuel Brocchini	
Tinspider Redux	Scott Parenteau	Three 120aH LiFePO4 batteries powered this metal strandbeest, one per side for the legs and one for the lighting. Recharged in camp. Successful.

Events

The RAT/AEZ Art and Theme Camp Renewable Energy Tour was canceled due to weather conditions (rain). Next year, instead of a separate tour, the RAT would like to participate in a [BRC Regenerative Infrastructure Tour](#) if the BMP sponsors one.

The RAT Wine and Cheese Soirée at the Playa Penthouse was the intended closeout for the tour. The Soirée was held despite the rain, with pretty good attendance. We aim to make the annual Renewable Energy Tour a regular occurrence and promote it heavily going forward, featuring artists, camps, and other Burners who have adopted renewable power for some or all of their energy needs.

RAT Headquarters Camp

Currently, RAT members camp all over the City, and we propose creating a “placed” headquarters location in 2026, to house communication and support supplies for RAT team members and to provide a known location where projects and individuals seeking help can find us on Playa. This year, RAT members set up the RAT Headquarters Camp in open camping near 2:15 & G. The camp was powered by a 2kW solar installation on a cargo trailer (Dean Hively and Cristina Archila).

For the 2026 event, we plan to submit a placement application for a RAT art support camp titled RAT Headquarters Camp to be located in a specific spot, and request that the RAT cargo container be delivered there. That would provide a valuable hub for on-playa RAT activities. If one is available, we could use a cargo container that has a standard door installed on one side.

Additionally, depending on the success and future deployment of the [BRC Solar Donation Station](#), it may also be maintained in this location.



RATs Dean Hively and Christina Archila at the RAT Headquarters
(aka Rogue Rats)

BRC Solar Donation Station

RAT was not involved in this seedling program, but stands ready to discuss and assist with the continuation and growth of this idea. It has the potential for increasing the deployment of renewable power for both artists and camps alike. The challenges with transporting large solar panels to Playa, (and the attendant fuel required for this transport) make this idea very exciting, maintaining a fleet of panels in closer proximity to the burn.

Challenges and Future Focus

Challenges

1. 2025 was a challenging year due to changes in RAT staffing. For the team to be successful, their functions had to be quickly reassigned to other RATs.
2. The RAT has set a new, more encompassing mission to assign its mentors to assist theme camps in transitioning from generators to renewable power (Appendix). To successfully transition from helping the artists to also incorporating theme camps, we have revised the information provided on the [RAT website](#), our [Targeted Guidance Mentoring Program Call for Projects](#), and our [Project Handbook](#) and [Mentoring Handbook](#).

Future Focus

1. The first 2026 Targeted Guidance Mentoring Program Call for Projects will be issued on January 1. It will remain open until shortly before the Black Rock City event, to support as many projects as possible.
2. We highly recommend that the BMP communicate the RAT's support resources to artists and theme camps during the application and other iterative processes.
3. The entirely volunteer nature of the RAT makes recruitment and retention challenging, particularly for the kinds of talent and enthusiasm we seek. For the 2026 event, the RAT will request further assistance from the BMP regarding:
 - Gift Tickets
 - Gift Vehicle Passes
 - Set up Access Passes
 - Pre-event, event, and post-event playa driving passes
 - Placement of the new RAT Headquarters Camp
 - If available, the use of a cargo container with a side door delivered to the RAT Headquarters Camp

Doing so will help the RAT increase our volunteer recruitment and retention.

Operational Expense Budget and Reimbursement

At the request of the BMP, we are now compiling an annual [Expense Reimbursement Budget](#) (2025). For the 2025 year, the BMP allocated \$3,000 to reimburse the RAT for operational expenses. The RAT submits its expense documentation on the 30th of each month, using a spreadsheet provided by the BMP. Stephen Chun coordinates with the RAT about our annual budget and expense reimbursement. The draft [2026 budget is now available for review](#).

Acknowledgments

Burning Man Project Staff

Stephen Chun

Stephen is a rock star. Stephen was the RAT's Burning Man Project contact for tickets, vehicle passes, Set-up Access Passes, pre-event, event, and post-event playa driving passes, as well as expense reimbursement, and coordination of this RAT After Burn Report. Stephen has always been very responsive, professional, and a great pleasure to work with.

Mongo

Mongo was the ASS team member assigned to engage with the RAT mentors mentioned above, and the visit increased understanding on both sides. The RAT greatly appreciates Mongo and ASS lead Gloria Beck for working to enhance RAT/ASS coordination and support.

Matthew Deluge

Over the last four years, it has been an honor to work with Starchild, and the RAT would like to thank him for all his guidance, advice, and logistical support.

Christopher Breedlove

Breedlove is a busy man, and the RAT greatly appreciates his having the time to watch out for the team and ensure the Burning Man Project consistently supports the RAT.

George Reed III

The RAT thanks George for allowing Stephen Chun to be a rock star.

The Renewables for Artists Team

Public Relations and Operations Support

Marlena Govaars - The creative force that produced [Wayfarers & Watts \(a RAT anthem\)](#) and the [RAT BMIR events announcement](#).

Christina Archila - Designer of the RAT handout card ([front](#), [back](#)), and served as a RAT on-playa coordinator—co-builder of RAT Headquarters.

Mentors

Bob Wolff - Lead Mentor: Future Sketch. Co-Mentor: Thread. Inventor of the RoboTracker discussed above.

Darren Emmons - Lead Mentor: Altar of Awen, Auditorium, and Chosen Family. Co-Mentor: Sphinx Gate.

Dean Hively - Lead Mentor: Jukebox Country, Love Your Mother, Missing Link, Tin Machine, No Brakes, and Ohnivý Vták the Firebird—co-builder of RAT Headquarters.

Ed Bronson - Lead Mentor: FREE SPIRITS. Assisted at The Temple of the Deep.

Ken Rehor - Lead Mentor: Illuminatrix and The Temple of the Deep. Co-Mentor: Talk to God.

Richard Miller - Assisted at The Temple of the Deep.

Robert Johnson - Lead Mentor: Nailed and Thread.

Rusty Limb - RAT trouble shooter and man-about-Playa. Expert dusting of solar panels for all the artists he encountered.

Steven Queen - Lead Mentor: Haven, Out the Other, Pillar of Po Tolo, The Lightning Tower, and Nova. Co-Mentor: FREE SPIRITS, Illuminatrix, and Nailed.

Zach Walls - Lead Mentor: Sphinx Gate and Talk to God.

Del Walls - Youngest member and Co-Lead in training. Co-mentor Sphinx Gate and Talk to God.

Staff

Scott Williams - Planning and Public Information Lead

Leadership

Andy Justice - Regionals Lead

Ken Rehor - Co-Leader

Sara Pugh - Burning Man Project Support Service Team

Steven Queen - Co-Leader

References

[RAT Website](#)

[RAT Facebook](#)

[RAT Outreach Flier](#)

Appendix

RAT Camp Support

In 2025, to further support the Burning Man Sustainability initiatives, RAT is expanding its mentoring program to include camps, offering to assist with converting camps to renewable energy sources.

We recommend "Taking one bite of the apple," meaning begin with one area of your camp that can be easily transitioned into solar or wind power, or build "hybrid systems" using generator power to charge battery banks, thereby drastically reducing fuel consumption and emissions.

Much of a camp's existing electrical infrastructure can be utilized as a renewable power grid. RAT's Technical Advisors are available to mentor and assist camps with electrical load analysis to determine the desired system capacity, make recommendations about system components, testing, and on-playa logistics.

- This [resource page](#) may be helpful with transitioning to renewable power sources
- The theme camp [Bao Chicka Wow Wow](#) is a leader in developing renewable power systems for [camps](#) and for charging [mutant vehicles](#)
- On the Burning Man Project's Hive, the Theme Camp Builders offer an [Electrical System Guide](#)

Soundtrack for this After Burn Report
[Esoterica Part Seven](#) (of course)